

SPECIFICATIONS FOR CONTROL CABLE

This specification applies to all 5 conductor and 12 conductor number 10 control cable.

1. General: All cable shall:

- a. Be in accordance with National Electrical Code (NEC) and NEMA WC publications as specified.
- b. Be furnished with a certification of date of manufacture. Cable which was manufactured more than 2 years prior to the bid opening date is not acceptable.
- c. Be round.
- d. Have Class B or Class C copper conductor.
- e. Have American Wire Gage designation.
- f. Have coverings or insulation suitable for installation in vertical position without injury to the covering or deformation of the insulation when supported in accordance with NEC Article 300-19.

2. Multi conductor Control Cable: Unless otherwise indicated, cables shall be as follows:

- a. 600 volt insulation, flame retardant, oil resistant, certified for continuous operation at 90 degrees C in wet or dry locations, with flame and moisture resistant fillers.
- b. Multi conductor type suitable for installation in trays, direct burial, and general use. "Tray and Direct Burial" label shall be clearly printed on the cable jacket.
- c. Individual conductors insulated with NEC Type XHHW insulation and color coded in accordance with Table K of NEMA WC7-1984. The color code is: black, green, red, white, orange, blue, white black, red black, green black, orange black, blue black, black white.
- d. Number 10 AWG, stranded, at least 30 mils (0.76 millimeter) thick.
- e. Binder tape or jacket covering.
- f. A protective metal shield:
Corrugated longitudinal copper tape with a thickness of at least 5 mils and a minimum lap of 10 percent: or
Copper braid consisting of 24 groups of 6 or 7 No. 30 AWG wires per group or the equivalent in total circular mil area and shall provide a minimum coverage of 85 percent. (Example, each No. 30 AWG wire has an area of 100.5 circular mils and 6 strands of the wire in the 24 groups to give a total area of 14,472 circular mils.)
- g. A copper Class B stranded, number 14 AWG, drain wire shall be included.
- h. An overall covering (jacket) of thermoplastic or neoprene:
Cable with No. 10 AWG individual conductors at least 60 mils (1.52 millimeters) thick, except 12 conductor cable shall be at least 80 mils (2.03 millimeters) thick.
- i. The following information shall be durably printed in white lettering on the black jacket surface and repeated at intervals not exceeding 24 inches: Manufacture's name, plant number, number of conductors, size of conductors, type of insulation, 600 volt shielded cable.